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Conference Abstract

A Collaborative Digitisation and Curatorial Project, Highlighting a Unique Collection and the Latimer Core Data Standard

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Abstract

Sir Joseph Banks is remembered for being a long-standing president of the Royal Society, the unofficial first director of Kew gardens and the pioneering naturalist on Captain James Cook's great voyage onboard the Endeavour, to observe the transit of Venus and search for an undiscovered southern continent (British Museum (Natural History) 1906).

Much of Bank's life is well documented but his surviving entomology collection has never been accurately catalogued. The Banks Collection at the Natural History Museum (NHM) London is an historic assemblage of insect specimens (Fig. 1, British Museum (Natural History) 1906). It includes specimens collected by Banks and others acquired through a world-wide network of collectors. During his lifetime, Banks shared specimens with his associates and gave many specimens to Dr. William Hunter and Johan Christian Fabricius. After his death, the remaining collection was donated to the Linnean Society and later passed to the British Museum in 1863.

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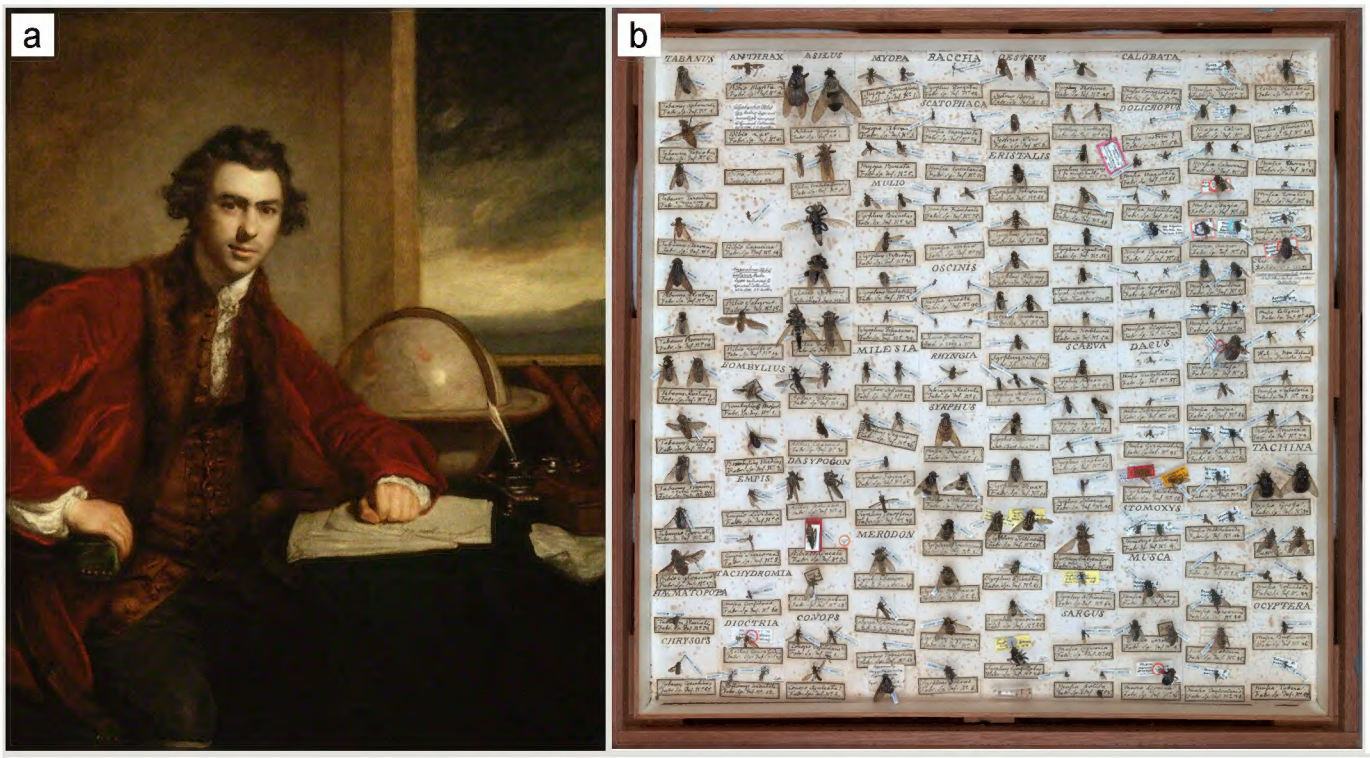

Figure 1.

Sir Joseph Banks and a drawer from his entomology collection.

a: Portrait of Sir Joseph Banks by Joshua Reynolds (circa 1771-1773) - Public Domain Work
b: Drawer of Diptera from the Banks collection (©Trustees of the Natural History Museum, London - CC BY 4.0)

The Banks Collection has both historical and cultural value and continues to be a relevant research tool. This is largely because Fabricius, a student of Carl Linnaeus, described many new species from the collection. Consequently, the collection contains many taxonomically important type specimens. The number of specimens in the collection is unknown but estimated to be approximately 4000.

The NHM is digitising the collection with the generous support of the Charles Hayward Foundation. The collection is housed in 55 entomological glass-topped drawers, albeit not the original drawers. When conserving historical material, there is an argument to leave everything in its original state, but after much consideration, the curatorial team decided—for the long-term preservation of the collection—the specimens should be rehoused into plastazote®-lined drawers keeping the original layout of the specimens and replacing the current cork-lined drawers as part of the digitisation process. High-resolution images are taken of every specimen with its associated labels. The information on the labels is recorded for each specimen and a barcode added.

As of August 2024, 3,300 specimens have been digitised and 30 of the 55 drawers recurated. More than 5000 high-resolution images have been taken (Fig. 2) and 438 labels have been transcribed for almost 1200 specimens.

This project is using a new Biodiversity Information Standards (TDWG) data standard, Latimer Core, designed to support the representation and discovery of natural science collections (Woodburn et al. 2022). Latimer Core is intended to be complimentary to specimen-level standards such as Darwin Core (Darwin Core Task Group 2009),

providing a way to structure and share higher-level information about groups of collection objects, from whole-museum collections through thematic and historic collections, to the contents of a single drawer. This is useful for collections with lots of associated data, fragile specimens or when displacement and disassociation of information is a concern. Unlike modern specimens, with data labels containing information on collecting event and associated persons, specimens in the Banks collection have few original labels. It was common practice that labels were temporary data storage and disposed of once the data was published. A replacement label was provided after publication (Fig. 2). The publication provides species description, geographic origin and often the name of the collection containing the specimen. Additional labels were subsequently added by curators and researchers. Many specimens have no data labels (Fig. 3). Unravelling important information about individual specimens, species and groups of specimens in this collection, including taxonomic, type status and origin will be supported by Latimer Core, as it allows a more holistic approach compared to only using specimen-level data. We can better incorporate data derived from various sources such as published data, illustrations and personal correspondence to learn about the individual and groups of specimens, the reverse of the usual workflow.

Figure 2.

Dorsal and lateral images of a Banks specimen with associated labels (©Trustees of the Natural History Museum, London - CC BY 4.0)

Figure 3.

Coleoptera specimens imaged for the Banks digitisation project (©Trustees of the Natural History Museum, London - CC BY 4.0).

Digitising this collection will improve access through digital records (specimen/drawer images, transcribed labels, publication references) reducing the need for physical examination and risk of damage. Whole-drawer digitisation in addition to specimen-level imaging provides information on the organisation and display of a collection.

A collection of this nature demands minimal handling and the best storage and collections management procedures to ensure its survival for future generations. However, its significance commands a continued interest by a wide and varied audience. By digitising this collection, we will improve its physical housing, increase its accessibility without compromising the specimens for the future, and support the publication of a comprehensive catalogue of the collection.

Keywords

Joseph Banks, entomology collection, historical collection

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Conflicts of interest

The authors have declared that no competing interests exist.

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